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INSTRUCTIONS
TO THE
CAPTAINS OF THE LIFE-SAVING STATIONS
OF THE
HUMANE SOCIETY OF MASSACHUSETTS,
WITH
DIRECTIONS FOR THE TREATMENT OF
THE APPARENTLY DROWNED, Etc.



BOSTON:
PUBLISHED FOR THE SOCIETY.
1885.

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CAPTAINS OF THE LIFE-SAVING STATIONS
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HUMANE SOCIETY OF MASSACHUSETTS.

Captains in charge of the Humane Society's Stations should not only make themselves familiar with the care and use of all the different apparatus at their stations, but should endeavor, by every means, to keep their neighbors interested in the Society's work; instructing them in the use of the apparatus by occasional practice drills, so that in time of need they may work together quickly and intelligently.

REWARDS FOR SERVICE.

The Society can afford to pay Captains only a small sum annually, for their trouble in keeping their stations in good order, but will reward, as liberally as possible, all actual service in the Society's cause.

The object of the Society is the preservation of human life, and it is strictly prohibited to launch its boats, or use its apparatus to save property for purposes of salvage.

Deeds of exceptional bravery will be especially rewarded with the Society's Medal.

REPORTS.

Captains must make full reports each quarter, of the condition of everything in their charge on the blank forms provided for the purpose; and, whenever assistance is rendered from their stations, they should, at once, report the case *in writing* as fully as possible.

Wreck reports are also provided which, in event of a wreck, must be filled out and mailed to the Society at once.

DIRECTIONS FOR CARE OF STATION AND APPARATUS.

Keep the Station-house perfectly clean, and, from time to time, air it well. See that the gear is kept dry to prevent mildew. See that all the Society's property is properly marked with the Society's name; for branding the oars and other wooden articles a branding iron is furnished.

Keep everything in its proper and most convenient place, and allow no property, not belonging to the Society, to be kept in the house.

When any article is worn out or lost, give immediate notice, so that it may be replaced without delay; and call attention at once to anything that, in your opinion, will make your equipment more efficient.

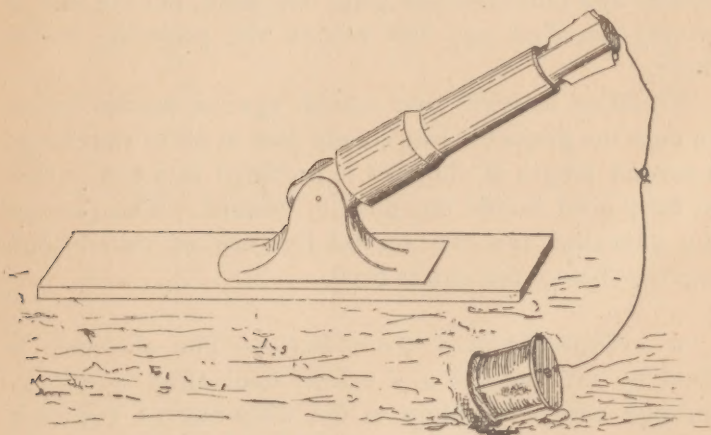
BOATS.

Run the boat into the water at least once a year, and occasionally throw a little salt water into the bottom to keep it tight.

Keep everything belonging to the boat in it ready for instant use, namely: the oars, an anchor and cable, a small grapnel to throw into the rigging of a wreck, a heaving stick and line, a boat hook, and two balers.

GUN AND LIFE-LINES.

Gun. In place of the old-fashioned mortar for throwing a line to a stranded vessel, the Society uses Hunt's gun and projectiles. Keep the gun well covered with black varnish. Always have on hand six projectiles,



twelve cartridges, and two dozen primers. To load the gun, raise the muzzle and put in the cartridge. Settle the projectile firmly over the cartridge, heavy end down, leaving the winged end projecting from the muzzle. Hitch the end of the line hanging from the projectile to the end of the shore shot-line. Place the latter at one side of the gun *to leeward*, drawing out a fathom of slack line in front of the gun. In firing, put the friction primer in the vent, hook on the lanyard, and, in pulling

the latter, be careful not to jerk the gun out of position and spoil the aim. If possible, aim the gun between the masts of a wreck, but at any rate to windward of any remaining spar, so that the line may more surely be caught by the crew of the vessel.

The life-line apparatus consists of the following parts :

1. *Shot-line.* — This is a small line of braided linen, to be shot off to a wreck. As the Hunt projectile carries the shot-line coiled up in its after end, it does not have to drag the line through the air, as is the case when the mortar and other life-line guns are used, but the line is simply uncoiled and left behind the projectile in its flight.

To afford elasticity and provide against sudden jerks, in case the projectile line should jam at all in uncoiling, a second length of shot-line is provided in a can or reel to be placed beside the gun to leeward. The ends of the shot-line and the second line are of course tied together before the gun is fired.

2. *Whip-line and Tail-blocks.* — The shot-line is used by the crew of a wreck to haul off a tail-block, through which the bight of the whip-line (1 1-4 inch manilla) is rove. *Tally-board No. 1* is tied to the tail-block directing the crew to "make the tail-block fast to the lower mast, well up; if masts are gone, then to the best place you can find. Cast off shot-line, see that the rope in the block runs freely, and show signal to the shore."

The whip-line is coiled on two reels in a box, one-half on one reel, and the other half on the other reel, so that each part runs out separately as the whip-line is hauled off to the wreck. After the tail-block is made

fast, the remaining length of line on the reels is cut off; one end of the whip-line is passed through a second tail-block, and is made fast to the other end. The whip-line then makes an endless rope, one part for the *outhaul* and the other the *inhaul*.

3. *Hawser*.—The hawser is a three-inch manilla rope, and is hauled off to a wreck by the whip-line. On the uppermost end of the hawser-coil, which is the end, of course, to be hauled off to the wreck, is *tally-board No. 2*, directing the crew to “make this hawser fast about two feet above the tail-block; see all clear, and that the rope in the block runs freely, then signal to the shore.”

4. *Breeches-Buoy*.—This is a large circular cork life-preserver, to the under side of which is stretched a pair of canvas breeches. The buoy is suspended by four rope legs meeting over the centre, and hitched to a large lizzard or snatch-block, so that it can travel on the hawser.

5. *Sand-Anchor and Pennant*.—The sand-anchor is a simple plank, or sometimes two planks, in form of a cross, with the legs pivoted at the centre, for easy stowing. The anchor is buried in a hole dug in the beach. At the centre of the anchor is a strap into which the pennant is hooked. The pennant has a snatch-block at the other end through which the shore part of the hawser is to be rove.

6. *Tackle*.—A tackle of two double tail-blocks, with a two and one-half inch fall, is used to haul the hawser taut between the wreck to the beach. One tail-block is hitched to the standing part of the hawser, and

the other to the end which has been rove in the snatch-block on the anchor pennant. Setting up the tackle will thus haul the hawser taut.

7. *Crotch*.—To hold the shore end of the hawser as high as possible, it is placed in the jaws of a wooden crotch, which is to be set up on the beach outside of the tackle just described.

CART.

To carry the life-line apparatus, a cart is provided, which must be kept ready for leaving the station instantly, with all the apparatus aboard. Beneath, in their becketts, a shovel and pick. Inside, an axe; the hawser neatly coiled in the middle, with tally-board No. 2 attached to its upper end, so that it may be sure to go off to the wreck; the reel-box, with the whip-line rove through its tail-block, with tally-board No. 1 attached to the tail of the block; then the breeches-buoy, crotch, sand-anchor, and the tackle; and, finally, on top of all, the gun. The tarpaulin cover must always be kept lashed over the cart and its contents.

In the box, at the front of the cart, are racks for the projectiles, and places for the cartridges, primers, and lanyard.

Keep the lantern, on the front of the cart, always trimmed and filled. See also that the axles are well greased that the wheels may run easily.

When the hawser and whip-lines are new stretch them well, with the tackle, to get out all tendency to kink, and coil the hawser in a large coil, carefully, so that it may run off easily. *This is very important, to avoid trouble when the time for use arrives.*

PROCEDURE IN EVENT OF A WRECK.

When a wreck is reported in the neighborhood, call or send for the men on whom you rely. On arrival at the station, keep cool, do not be in too great haste, but stop and think a moment over the best plan of action, and be sure before leaving that everything is ready. On reaching the shore, make signals to the crew of the wreck that help is at hand.

If the gun and life-lines are to be used, the following directions should be followed :

Take from the cart the gun and apparatus, and while the former is being placed in position, let one hand see that the reel-box and whip-line are ready and clear to run smoothly. Two or more men may, at the same time, take the rest of the apparatus from the cart and arrange the different parts on the beach. They should then dig a hole and bury the sand-anchor, leading the pennant out in front of it.

When the gun is fired, one man stands by the shore-coil of shot-line, and as soon as he sees that the shot-line has fallen across the wreck he must cut off the rest of the coil and hitch the end to the bight of the whip-line, just below the tail-block. The tail of the latter must also be hitched to the shot-line farther out, so that it reaches the wreck first. Be as quick as possible in doing this, as the crew of the wreck will probably seize the shot-line and haul off at once.

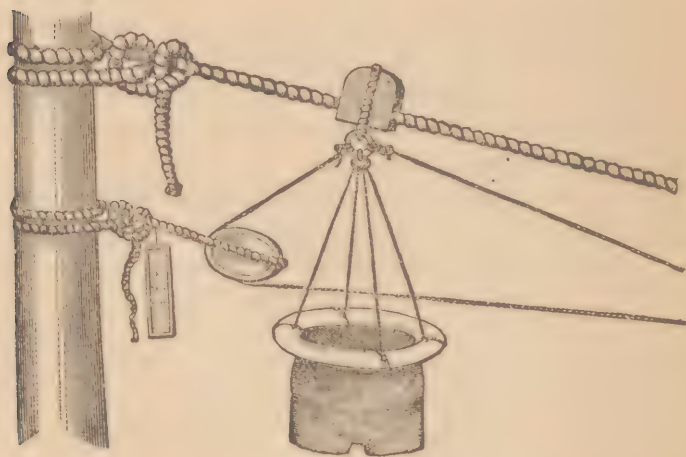
While the whip-line is being hauled off, one man should stand by each part, paying out evenly, and holding the parts twenty feet from each other to prevent turns.

As soon as the whip-line has reached the wreck, cut off the remaining lengths on the reel, pass one of the ends through the inshore tail-block — which should then

be made fast to the pennant half-way down from the snatch-block — and knot or splice the two ends together.

Next bend the leeward part of the whip-line to the upper end of the hawser (to which tally-board No. 2 is attached), making fast two or three fathoms outside of the knot, so that the crew on the wreck may not untie the knot and cast the ends adrift, which would, of course, make the whip useless.

When the hawser is made fast, man the weather part of whip-line and haul out the hawser, one man tending the lee part and another the hawser. The former should hold the whip-line wide apart from the hawser to prevent turns.



When signal is made from the wreck that the hawser is fast there, haul it hand-taut and put the bight through the pennant snatch-block; bend the inner tackle-block to the hawser just inside (that is on the shore-side) of the snatch-block; overhaul the tackle and bend the outer tackle-block to the standing part of the hawser as far out from the pennant as possible (as shown in the ad-

joining figure), and set taut on the tackle. When the tackle is block-a-block, and the hawser is still not taut enough, rack the two parts of the hawser together, overhaul the tackle, make fast as before, and again set taut.

Before the hawser is quite taut, set up the crotch under it near the edge of the beach, with the legs in and the jaws out, raise it up a little, and as the hawser is gradually set taut it will help pull the crotch upright. It is well to put the legs of the crotch between the two parts of the whip, so that they will be sure to be kept separate.



When the hawser is thus set up, haul in the knot of the whip-line, cast it off and make the two ends fast to opposite sides of the breeches-buoy, then haul off the breeches-buoy, and as soon as some one on the wreck is seated in it, haul back, repeating the operation until all are landed.

NOTE. — The two cuts, on pages 9 and 10, are reproduced from the "Instructions to Mariners in case of Shipwreck," U. S. Life-Saving Service.

DIRECTIONS

FOR

RESTORING THE APPARENTLY DROWNED.

RULE I. *Arouse the patient.* — Unless in danger of freezing, do not move the patient, but instantly expose the face to a current of fresh air, wipe dry the mouth and nostrils, rip the clothing, so as to expose the chest and waist, and give two or three quick, smarting slaps on the stomach and chest with the open hand. If the patient does not revive, then proceed thus :



Fig. 1.

RULE II. *To draw off water, etc., from the stomach and chest.* — (See Fig. 1.) — If the jaws are clenched,

separate them, and keep the mouth open by placing between the teeth a cork or small bit of wood: turn the patient on the face, a large bundle of tightly-rolled clothing being placed beneath the stomach, and press heavily over it for half a minute, or so long as fluids flow freely from the mouth.



Fig. 2.

RULE III. *To produce breathing.*—(See Fig. 2.)—Clear the mouth and throat of mucus, by introducing into the throat the corner of a handkerchief wrapped closely around the fore-finger; turn the patient on the back, the roll of clothing being so placed beneath it as to raise the pit of the stomach above the level of any other part of the body. If there be another person present, let him, with a piece of dry cloth, hold the tip of the tongue out of one corner of the mouth (this prevents the tongue from falling back and choking the entrance to the windpipe), and with the other hand grasp both wrists and keep the arms forcibly stretched back above the head, thereby increasing the prominence of the ribs, which tends to enlarge the chest.

The two last-named positions are not, however, essential to success. Kneel beside or astride the patient's hips, and with the balls of the thumbs resting on either side of the pit of the stomach, let the fingers fall into the grooves between the short ribs, so as to afford the best grasp of the waist. Now, using your knees as a pivot, throw all your weight forward on your hands, and at the same time squeeze the waist between them, as if you wished to force everything in the chest upward out of the mouth: deepen the pressure while you can count slowly one, two, three; then suddenly let go with a final push, which springs you back to your first kneeling position. Remain erect on your knees while you can count one, two, three; then repeat the same motions as before at a rate gradually increased from four or five to fifteen times in a minute, and continue thus this bellows movement with the same regularity that is observable in the natural motions of breathing which you are imitating. If natural breathing be not restored, after a trial of the bellows movement for the space of three or four minutes, then, without interrupting the artificial respiration, turn the patient a second time on the stomach, as directed in Rule II, rolling the body in the opposite direction from that in which it was first turned, for the purpose of freeing the air-passages from any remaining water. Continue the artificial respiration from one to four hours, or until the patient breathes; and for a while, after the appearance of returning life, carefully aid the first short gasps until deepened into full breaths. Continue the drying and rubbing, which should have been unceasingly practiced from the beginning, taking care not to interfere with the means employed to produce breathing. Thus the limbs of the patient should be rubbed, always in an upright direction towards the body, with firm-grasping pressure and energy, using the bare hands.

dry flannels or handkerchiefs, and continuing the friction under the blankets or over the dry clothing. The warmth of the body can also be promoted by the application of hot flannels to the stomach and arm-pits, bottles or bladders of hot water, heated bricks, etc., to the limbs and soles of the feet.

RULE IV. AFTER TREATMENT. — *Externally*: As soon as breathing is established, let the patient be stripped of all wet clothing, wrapped in blankets only, put to bed comfortably warm, but with a free circulation of fresh air, and left to perfect rest. *Internally*: Give a little brandy and hot water, or other stimulant at hand, every ten or fifteen minutes for the first hour, and as often thereafter as may seem expedient. *Later manifestations*: After reaction is fully established, there is great danger of congestion of the lungs, and if perfect rest is not maintained for at least forty-eight hours, it sometimes occurs that the patient is seized with great difficulty of breathing, and death is liable to follow unless immediate relief is afforded. In such cases, apply a large mustard-plaster over the breast. If the patient gasps for breath before the mustard takes effect, assist the breathing by carefully repeating the artificial respiration.

NOTE. — An eminent authority, Dr. Labordette, the Supervising Surgeon of the Hospital of Lisieux, in France, appears to have established that the clenching of the jaws and the semi-contraction of the fingers, which have hitherto been considered signs of death, are, in fact, evidences of remaining vitality. After numerous experiments with apparently drowned persons, and

also with animals, he concludes that these are only signs accompanying the first stage of suffocation by drowning, the jaws and hands becoming relaxed when death ensues.* This being so, the mere clenching of the jaws and semi-contraction of the hands must not be considered as reasons for the discontinuance of efforts to save life, but should serve as a stimulant to vigorous and prolonged efforts to quicken vitality. Persons engaged in the tasks of resuscitation are, therefore, earnestly desired to take hope and encouragement for the life of the sufferer, from the signs above referred to, and to continue their endeavors accordingly. In a number of cases, Dr. Labordette restored to life persons whose jaws were so firmly clenched that, to aid respiration, their teeth had to be forced apart with iron instruments.

* The muscular rigidity of death (*rigor mortis*) occurs later, after the temporary relaxation here referred to.

INSTRUCTIONS

FOR

Saving Drowning Persons by Swimming to their Relief.

1. When you approach a person drowning in the water assure him, in a loud and firm voice, that he is safe.

2. Before jumping in to save him, divest yourself as far and as quickly as possible of all clothes; tear them off, if necessary; but if there is not time, loose, at all events the foot of your drawers, if they are tied, as, if you do not do so, they will fill with water and drag you.

3. On swimming to a person in the sea, if he be struggling, do not seize him then, but keep off for a few seconds till he gets quiet, for it is sheer madness to take hold of a man when he is struggling in the water, and if you do you run a great risk.

4. Then get close to him and get fast hold of the hair of his head, turn him as quickly as possible on to his back, give him a sudden pull, and this will cause him to float, then throw yourself on your back also and swim for the shore, both hands having hold of his hair, you on your back and he also on his, and of course his

back to your stomach. In this way you will get sooner and safer ashore than by any other means, and you can easily thus swim with two or three persons; the writer has even, as an experiment, done it with four, and gone with them forty or fifty yards in the sea. One great advantage of this method is that it enables you to keep your head up, and also to hold the person's head up you are trying to save. It is of primary importance that you take fast hold of the hair and throw both the person and yourself on your backs. After many experiments it is usually found preferable to all other methods. You can in this manner float nearly as long as you please, or until a boat or other help can be obtained.

5. It is believed there is no such a thing as a death-grasp; at least it is very unusual to witness it. As soon as a drowning man begins to get feeble and to lose his recollection, he gradually slackens his hold until he quits it altogether. No apprehension need, therefore, be felt on that head when attempting to rescue a drowning person.

6. After a person has sunk to the bottom, if the water be smooth, the exact position where the body lies may be known by the air-bubbles, which will occasionally rise to the surface, allowance being of course made for the motion of the water, if in a tide-way or stream, which will have carried the bubbles out of a perpendicular course in rising to the surface. A body may be often regained from the bottom, before too late for recovery, by diving for it in the direction indicated by these bubbles.

7. On rescuing a person by diving to the bottom, the hair of the head should be seized by one hand only, and

the other used, in conjunction with the feet, in raising yourself and the drowning person to the surface.

8. If in the sea, it may sometimes be a great error to try to get to land. If there be a strong "outsetting" tide, and you are swimming either by yourself, or having hold of a person who cannot swim, then get on your back and float till help comes. Many a man exhausts himself by stemming the billows for the shore on a back-going tide, and sinks in the effort, when, if he had floated, a boat or other aid might have been obtained.

9. These instructions apply alike to all circumstances,—whether as regards the roughest sea or smooth water.

TREATMENT OF FROST-BITE.*

Frost-bite is the result of exposure to severe cold. The vitality of the part affected is reduced to a very low point, loses its natural color, and becomes blue or purple.

TREATMENT. — Bring about reaction gradually by friction. Place the patient in a room without a fire, and avoid heat. Rub the part with snow or other cold application, and administer brandy and water carefully in small quantities. If a person is found insensible from cold he must be kept away from the heat. Remove the clothing and rub thoroughly with snow or cloths wrung out in cold water. Continue the friction, especially to the extremities, until signs of recovery appear. Artificial respiration may be necessary. Give brandy and beef tea in small quantities.

* From "First Aid to the Injured."

